



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

JUN 05 2012

Gerardo C. Rios, Chief
Permits Office
Air Division
U.S. EPA - Region IX
75 Hawthorne St
San Francisco, CA 94105

**Re: Final - Authority to Construct / Certificate of Conformity (Minor Mod)
Project # 1114868**

Dear Mr. Rios:

The Air Pollution Control Officer has issued an Authority to Construct (Authority to Construct (ATC) S-883-3-20) with a Certificate of Conformity to Rio Bravo Poso. A condition referencing the operation of TEOR wells was deleted from cogeneration unit PTO S-883-3-19 as it is no longer applicable. Please note that this project and project S-1121288 authorize the designation of heavy oil production operation equipment as a separate stationary source (non Title V). Crude oil storage tanks, TEOR system and flare previously designated as S-883-6 through '9 were removed from the Title V permit and added under new facility, S-8159.

Enclosed are copies of the Authority to Construct. The application and proposal were sent to US EPA Region IX on April 30, 2012. No comments were received following the District's preliminary decision on this project.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Sincerely,

A handwritten signature in black ink, appearing to read "David Warner".

David Warner
Director of Permit Services

Enclosures
rue

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
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Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: (661) 392-5500 FAX: (661) 392-5585



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

JUN 05 2012

Mr. William Rossiter
Rio Bravo Poso
PO Box 81027
Bakersfield, CA 93380

**Re: Final - Authority to Construct / Certificate of Conformity (Minor Mod)
Project # 1114868**

Dear Mr. Rossiter:

The Air Pollution Control Officer has issued an Authority to Construct (Authority to Construct (ATC) S-883-3-20) with a Certificate of Conformity to Rio Bravo Poso. A condition referencing the operation of TEOR wells was deleted from cogeneration unit PTO S-883-3-19 as it is no longer applicable. Please note that this project and project S-1121288 authorize the designation of heavy oil production operation equipment as a separate stationary source (non Title V). Crude oil storage tanks, TEOR system and flare previously designated as S-883-6 through '9 were removed from the Title V permit and added under new facility, S-8159.

Enclosed is the Authority to Construct and invoice. The application and proposal were sent to US EPA Region IX on April 30, 2012. No comments were received following the District's preliminary decision on this project.

Prior to operating with modifications authorized by the Authority to Construct, you must submit an application to modify the Title V permit as an administrative amendment in accordance with District Rule 2520, Section 11.5.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Sincerely,

David Warner
Director of Permit Services

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AUTHORITY TO CONSTRUCT

PERMIT NO: S-883-3-20

ISSUANCE DATE: 06/05/2012

LEGAL OWNER OR OPERATOR: RIO BRAVO POSO
MAILING ADDRESS: 19100 VON KARMAN, STE 570
IRVINE, CA 92612

LOCATION: 16608 PORTERVILLE HWY
BAKERSFIELD, CA 93308

SECTION: SW28 **TOWNSHIP:** 27S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 36.0 MW SOLID FUEL FIRED CIRCULATING BED COMBUSTOR COGENERATION UNIT INCLUDING 389 MMBTU/HR COMBUSTOR WITH LOW-TEMPERATURE STAGED COMBUSTION, AMMONIA INJECTION, AND PULVERIZED LIMESTONE INJECTION - POSO CREEK: REMOVE CONDITION REQUIRING WELL VENT CONTROL

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Permittee shall comply in full with all applicable Rule 4001 requirements (New Source Performance Standards, 40 CFR, Part 60, Subpart Da). [District Rule 4001] Federally Enforceable Through Title V Permit
4. Fuel collecting conveyor, two fuel crushers, two bucket elevators, two boiler feed conveyors, fuel feed bin, fuel feeder, and limestone conveyor/feeder shall be totally enclosed and ventilated to fabric collector. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Operation shall be equipped with pneumatic limestone feed system. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

S-883-3-20 : Jun 5 2012 11:06AM - EDGEHILR : Joint Inspection NOT Required

6. Operation shall be equipped with primary and secondary combustion air blowers and air preheater with ash hopper. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Operation shall be equipped with fabric collector with ash hopper serving fuel/limestone handling equipment and combustor. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The main exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples using approved EPA test methods. [District Rule 1081, 3.0; and PSD SJ 85-07] Federally Enforceable Through Title V Permit
9. Combustor shall be fired only on coal, petroleum coke, and/or biomass fuel. Propane or natural gas may be used as start-up fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Biomass introduced into the combustor shall not contain more than 2% by weight non-biomass material (plastics, metal, painted and preservative-treated wood, roofing material, fiberglass, etc.). [District Rule 4102]
11. At least once per quarter, operator shall collect a representative sample of the biomass material combusted and determine the weight percent of non-biomass material contained in that sample. Prior to collecting the first quarterly sample, operator shall submit a sampling plan to the District's compliance division for approval and shall follow the approved plan for all subsequent sampling, unless a revised plan is submitted and approved. [District Rules 1081 and 4102] Federally Enforceable Through Title V Permit
12. "Biomass" means any organic material originating from plants including but not limited to products, by-products, residues and wastes from agriculture, forestry, aquatic and related industries, such as agricultural, energy or feed crops, residues and wastes, orchard and vineyard prunings and removal, stone fruit pits, nut shells, cotton gin trash, corn stalks and stover, straw, seedhulls, sugarcane leavings and bagasse, aquatic plants and algae, cull logs, eucalyptus logs, poplars, willows, switchgrass, alfalfa, bark, lawn, yard and garden clippings, waste paper (unprinted), leaves, silvicultural residue, tree and brush pruning, sawdust, timber slash, mill scrap, wood and wood chips, and wood waste. Biomass does not include material containing sewage sludge or industrial, hazardous, radioactive, municipal solid waste, or any material chemically treated or derived from fossil fuels. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
13. Wood waste includes clean, chipped wood products, plywood, wood products manufacturing wood materials, construction and demolition wood materials, and wood pallets, crates and boxes. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
14. No more than 836,520 lb (on a dry basis) of coal or coke fuel per day of no more than 4.0% by weight sulfur shall be introduced into the combustor. Two (2) pounds of biomass fuel of no more than 4.0% by weight sulfur may be substituted for one (1) pound of coal or coke fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
15. No more than 836,520 lb (on a dry basis) of solid fuel per day of no more than 4.0% by weight sulfur shall be introduced into the combustor. [PSD SJ 85-07] Federally Enforceable Through Title V Permit
16. Limestone shall be capable of being directly injected into the combustor at a minimum of 0.042 lb limestone per lb of coal or coke introduced into the combustor, or 0.021 lb limestone per lb of biomass. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Peak temperature of combustor shall not exceed 1800 degrees F. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Unit shall be operated as staged-combustion device by introducing sub-stoichiometric amount of combustion air in primary combustion zone. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Ash shall be removed from combustion system only by means authorized by ash handling and loadout operation (Permit No. S-883-4). [District Rule 2201] Federally Enforceable Through Title V Permit
20. Fuel feed and combustion air supply shall be automatically shutdown whenever fabric collector is shutdown. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Visible emissions shall not exceed 1/4 Ringelmann or equivalent 5% opacity at any time from fuel conveyors, crusher, feed bin, feeder, and fabric collector. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

22. All combustor exhaust gas shall pass through fabric collector prior to emission to atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Ammonia injection system shall be capable of delivering at least 2.0 moles of NH₃ for each mole of NO_x. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Soot-blowing shall not result in visible emissions of greater than Ringelmann 1 or equivalent 20% opacity, excluding uncombined water vapor, except for aggregate periods of less than 3 minutes in any one hour period. [District Rule 4101] Federally Enforceable Through Title V Permit
25. Start-up period is defined as the period of time, not exceeding 96 hours except during refractory curing when 192 hours are allowed, during which the combustor is heated to the operating temperature and pressure from a shutdown status. [District Rule 4352] Federally Enforceable Through Title V Permit
26. Shutdown period is defined as the period of time, not exceeding 12 hours, during which a unit is taken from operational to nonoperational status by allowing it to cool down from its operating temperature and pressure to an ambient temperature. [District Rule 4352] Federally Enforceable Through Title V Permit
27. "Non-operational (shutdown) status" is defined as a period when no combustion is occurring, and thus no combustion emissions are being generated or emitted, even though there is residual heat in the boiler. During "shutdown" status the unit shall be considered "boiler off-line" and no emission limits shall apply. "Shutdown" status ends with a startup. [District Rule 2201 5.7.1 and 5.7.2] Federally Enforceable Through Title V Permit
28. The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown. [District Rule 4352] Federally Enforceable Through Title V Permit
29. Particulate matter (PM-10) emission rate shall not exceed 4.31 lb/hr, 0.0111 lb/MMBtu and 0.007 grains/dscf. [District NSR Rule and 40 CFR 60.42 (a)(1)] Federally Enforceable Through Title V Permit
30. Except during periods of combustor start-up and shutdown, sulfur oxide emissions (as SO₂) shall not exceed 15.47 lb/hr and 0.0398 lb/MM Btu. [District Rule 2201 and 40 CFR 60.43 (a)(2)] Federally Enforceable Through Title V Permit
31. Except during periods of startup or shutdown, sulfur dioxide emissions shall not exceed 30% of the potential combustion concentration (70% reduction in potential emissions of sulfur dioxide based on sulfur analysis of "as-fired" fuel). [40CFR60 Subpart Da] Federally Enforceable Through Title V Permit
32. During periods of combustor start-up and shutdown, sulfur oxide emissions (as SO₂) shall not exceed 0.11 lb/MMBtu, calculated on a daily basis. [District Rule 2201] Federally Enforceable Through Title V Permit
33. Sulfur oxide emissions (as SO₂) shall not exceed the following quarterly amounts: 1st Qtr., 33,415 lb; 2nd Qtr., 33,786 lb; 3rd Qtr., 34,158 lb; and 4th Qtr., 34,158 lb. [District Rule 2201 and 40 CFR 60.43Da] Federally Enforceable Through Title V Permit
34. Except during periods of combustor start-up and shutdown, nitrogen oxides emissions (as NO₂) shall not exceed 38.90 lb/hr and 0.1000 lb/MMBtu, as calculated on a daily basis. [District Rule 2201 and 40 CFR 60.42 (a)(1), (2)] Federally Enforceable Through Title V Permit
35. During periods of combustor start-up and shutdown, nitrogen oxide emissions (as NO₂) shall not exceed 0.20 lb/MMBtu, calculated on a daily basis. [District Rule 2201] Federally Enforceable Through Title V Permit
36. Nitrogen oxide emissions (as NO₂) shall not exceed the following quarterly amounts: 1st Qtr., 84,024 lb; 2nd Qtr., 84,958 lb; 3rd Qtr., 85,891 lb; and 4th Qtr., 85,891 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
37. Volatile organic compound (VOC) emission rate shall not exceed 6.03 lb/hr and 0.0155 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
38. Carbon monoxide (CO) emission rate shall not exceed 105.10 lb/hr (3-hour average) and 0.2701 lb/MMBtu. [District Rule 2201 & PSD SJ 85-07] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

39. Performance testing shall be conducted annually for NO_x, SO_x, CO, VOCs, and PM(10) at steady-state steam production rate of at least ninety (90) percent of 305,000 pounds per hour using the following test methods; for NO_x EPA Methods 1-4 and 7 or ARB Method 100; for SO_x EPA Methods 1-4 and 8 or ARB Method 100; for CO EPA Method 1-4 and 10 or ARB Method 100; for VOCs EPA Method 25 or 18; and for PM(10) EPA Method 201A in combination with EPA Method 202 or any other test methods and procedures approved by the District. [District Rules 4352, 6.4 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
40. Performance testing shall be conducted annually for NO_x, SO_x, CO, VOCs, and PM(10) at the maximum operating capacity using following test methods; for NO_x EPA Methods 1-4 and 7 or ARB Method 100; for SO_x EPA Methods 1-4 and 8 or ARB Method 100; for CO EPA Method 1-4 and 10 or ARB Method 100; for VOCs EPA Method 25 or 18; and for PM(10) EPA Method 201A in combination with EPA Method 202. [PSD SJ 85-07] Federally Enforceable Through Title V Permit
41. The District and EPA must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1 & PSD SJ 85-07] Federally Enforceable Through Title V Permit
42. Performance testing shall be witnessed or authorized District personnel and EPA. Test results must be submitted to the District within 60 day of performance testing. [District Rule 1081, 7.2, 7.3; 40 CFR 60.51Da (a) & PSD SJ 85-07] Federally Enforceable Through Title V Permit
43. Quarterly, start-up, and shutdown NO_x and SO_x emissions shall be measured by maintaining CEM, fuel use and fuel Btu content records, and such records shall be made available for District inspection upon request. [District Rule 1070, 4.0] Federally Enforceable Through Title V Permit
44. Permittee shall maintain an operating log containing type and quantity of fuel used and higher heating value of such fuels on daily basis. [District Rules 2201 and 4352, 6.2; PSD SJ 85-07] Federally Enforceable Through Title V Permit
45. Sulfur fuel of the each type of fuel shall be measured and recorded on monthly basis using current ASTM Methods or shall be certified by supplier for each shipment. [District Rule 2520, 9.3.2; 40 CFR 60.51Da (a) & PSD SJ 85-07] Federally Enforceable Through Title V Permit
46. Operator shall install, operate, and maintain in calibration a system which continuously measures and records control system operating parameters; elapsed time of operation; and exhaust gas opacity, NO_x, SO₂, and O₂ (or CO) concentrations. [District Rules 2201 and 1080; 40 CFR 60.49Da(b); & PSD SJ 85-07] Federally Enforceable Through Title V Permit
47. The continuous emissions monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix B; 40 CFR 60, Appendix F; and 40 CFR 51, Appendix P, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.5; and PSD SJ 85-07] Federally Enforceable Through Title V Permit
48. Operator shall install, operate, and maintain in calibration a system which continuously measures and records stack gas volumetric flow rates meeting the performance specifications of 40 CFR Part 52, Appendix E. [PSD SJ 85-07] Federally Enforceable Through Title V Permit
49. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit
50. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEMs that have been installed pursuant to District Rule 1080, and emission measurements. [District Rule 1080, 7.3; 40 CFR 60.52Da and PSD SJ 85-07] Federally Enforceable Through Title V Permit
51. The permittee shall maintain hourly, daily, and 30-day rolling average records of NO_x and SO_x emissions and of the percentage SO_x reduction. [40 CFR 60.48Da (f), (g), 60.43Da (a), 60.51Da (b)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

52. The permittee shall obtain emission data from the CEMS for at least 22 out of 30 successive boiler operating days for compliance determination. If this minimum data requirement can not be met with the CEMS, the permittee shall supplement the emission data with other monitoring systems approved by the APCO or with the reference methods and procedures described in 40 CFR 60.49(h). [40 CFR 60.49Da(f)] Federally Enforceable Through Title V Permit
53. Permittee shall submit a CEMs written report for each calendar quarter to the District and to EPA. The report is due on the 30th day following the end of the calendar quarter. [District Rule 1080, 8.0; 40 CFR 60.51Da (a); and PSD SJ 85-07] Federally Enforceable Through Title V Permit
54. Quarterly report shall include: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [District Rule 2520, 9.5.1; Rule 1080, 8.0 and PSD SJ 85-07] Federally Enforceable Through Title V Permit
55. Any violation of emission standards, as indicated by the CEM, shall be reported by the operator to the APCO within 96 hours. Excess emissions shall be defined as any three-hour period during which emissions of SOx or NOx as measured by CEM system exceeds the SOx and NOx maximum emission limits set forth for each the pollutants in this permit. [District Rule 1080, 9.0; and PSD SJ 85-07] Federally Enforceable Through Title V Permit
56. Operator shall notify the District no later than one hour after the detection of a breakdown of the CEM unless the owner or operator demonstrates to the APCO's satisfaction that a longer noticing period was necessary. The operator shall inform the District of the intent to shut down the CEM at least 24 hours prior to the event. [District Rules 1080 and 1100 and 40 CFR 64] Federally Enforceable Through Title V Permit
57. Permittee shall not discharge or cause the discharge into the atmosphere SO₂ in excess of the more stringent of 14.0 lb/hr or 20 ppm at 3% O₂ (3-hour average) from stack venting from the combustion unit except during periods of startup and shutdown. [PSD SJ 85-07] Federally Enforceable Through Title V Permit
58. Permittee shall not discharge or cause the discharge into the atmosphere NO_x in excess of the more stringent of 38.9 lb/hr or 78 ppm at 3% O₂ (3-hour average) from stack venting from the combustion unit except during periods of startup and shutdown. [PSD SJ 85-07] Federally Enforceable Through Title V Permit
59. During startup or shutdown, permittee shall not discharge or cause the discharge into the atmosphere SO₂ in excess of 0.11 lb/MMBtu averaged over a 24-hour period. [PSD ATC SJ 85-07] Federally Enforceable Through Title V Permit
60. During startup and shutdown, permittee shall not discharge or cause the discharge into the atmosphere NO_x in excess of 0.20 lb/MMBtu averaged over a 24-hour period. [PSD ATC SJ 85-07] Federally Enforceable Through Title V Permit
61. Fabric collection system shall be completely inspected annually while in operation for evidence of particulate matter breakthrough and shall be repaired as needed. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
62. Fabric collector filters shall be completely inspected annually while not in operation for tears, scuffs, abrasives or holes which might interfere with PM collection efficiency and shall be replaced as needed. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
63. Records of fabric collector filter maintenance, inspection, and repairs shall be maintained. The records shall include identification of equipment, date of inspection, corrective action taken, and identification of individual performing inspection. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit